

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
31 March 2005 (31.03.2005)

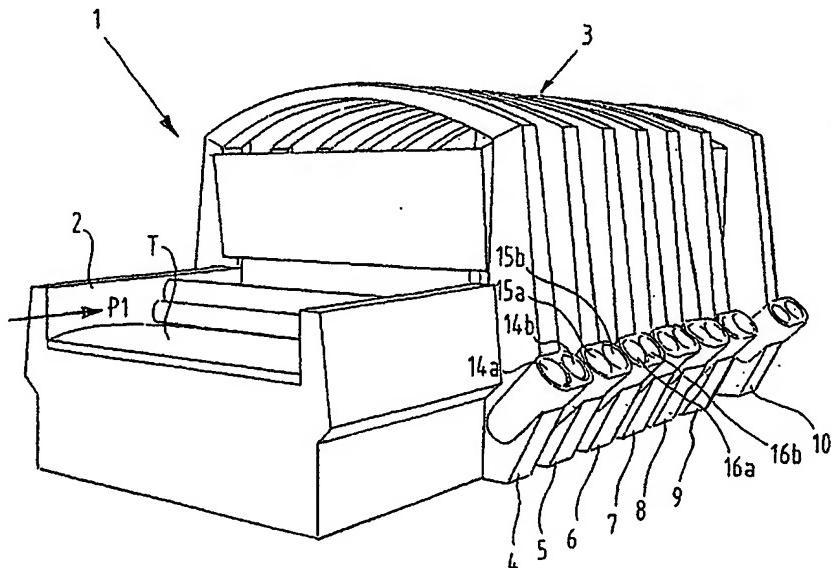
PCT

(10) International Publication Number  
**WO 2005/028730 A1**

- (51) International Patent Classification<sup>7</sup>: D06B 11/00, B41J 11/00
- (74) Agent: CLARKSON, Paul; Howrey Simon Arnold & White, CityPoint, One Ropemaker Street, London EC2Y 9HS (GB).
- (21) International Application Number: PCT/EP2004/010732
- (22) International Filing Date: 22 September 2004 (22.09.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
- |                               |                                |    |
|-------------------------------|--------------------------------|----|
| 1024338                       | 22 September 2003 (22.09.2003) | NL |
| PCT/NL03/00841                |                                |    |
| 28 November 2003 (28.11.2003) |                                | NL |
- (71) Applicant (for all designated States except US): TEN CATE ADVANCED TEXTILES B.V. [NL/NL]; Campbellweg 30, NL-7443 PV Nijverdal (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): CRAAMER, Johannes, Antonius [NL/NL]; De Kampen 48, NL-6943 HE Meppel (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*[Continued on next page]*

(54) Title: METHOD AND DEVICE FOR DIGITALLY UPGRADING TEXTILE



**WO 2005/028730 A1**

(57) Abstract: The invention provides a method for digitally upgrading a textile article (T) using a textile upgrading device (1), the device (1) comprising a number of nozzles (12) for applying one or more substances to the textile (T), in addition to transport means (2) for transporting the textile (T) along the nozzles (12), wherein the nozzles (12) are ordered in a number of successively placed rows (4, 5, 6, 7) extending transversely of the transporting direction of the textile article (T), the method comprising the steps of: guiding the textile article (T) along a first row (4) of nozzles (12); performing with the first row (4) of nozzles (12) one of the operations of painting, coating or finishing of the textile article (T) carried therealong; subsequently guiding the textile (T) along a second row (5) of nozzles (12); and performing with the second row (5) of nozzles (12) another of the operations of painting, coating or finishing of the textile article (T) carried therealong.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,*

*IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

- *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*